

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
OCD Hobbs

FORM APPROVED
OMB NO. 1004-0137
Expires January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

5. Lease Serial No.
NM106696

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

HOBBS OCD

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well

Oil Well Gas Well Other

OCT 20 2017

8. Well Name and No.
RUM RUNNER 2 FEDERAL COM 2H

2. Name of Operator
OXY USA INC.

Contact: DAVID STEWART
E-Mail: david_stewart@oxy.com

RECEIVED

9. API Well No.
30-025-40095

3a. Address
P.O. BOX 50250
MIDLAND, TX 79710

3b. Phone No. (include area code)
Ph: 432-685-5717

10. Field and Pool or Exploratory Area
RED TANK BONE SPRING

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 2 T22S R32E SENE 1980FNL 330FEL
32.422515 N Lat, 103.637530 W Lon

11. County or Parish, State

LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

- MIRU pulling unit & reverse unit. POOH w/ pump & rods, ND WH, NU BOP. POOH w/ tbg and scan.
- PU BHA and clean out to approximately 13737' M. RIH w/ CIL from 8847' (KOP @ 8730?) to surface. Pump WF PLA fluid loss product to seal existing perms, circ hole clean, POOH.
- RIH w/ pkr & RBP, set RBP @ approximately 8700', load hole, test RBP to 1000#. Rel pkr, load hole, test casing to 5200# for 15 min., if test is good, rel pkr & RBP & POOH.
- RIH w/ 4-1/4" X 5-1/2" Frac Patch liner & set @ approximately 9400-13737'M, see attached for detail. *4 1/4" liner needs to be cemented to the top of liner.*
- ND BOP, RDPU, NU frac tree, perf & frac via 5-1/2" X 4-1/4" liner, in 21 stages w/ zone

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #386243 verified by the BLM Well Information System
For OXY USA INC., sent to the Hobbs
Committed to AFMSS for processing by MUSTAFA HAQUE on 10/05/2017 ()**

Name (Printed/Typed) DAVID STEWART

Title SR. REGULATORY ADVISOR

Signature (Electronic Submission)

Date 08/25/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By Mustafa Haque

Title **PETROLEUM ENGINEER**

Date 10-12-2017

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

**BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

MJB/OCD 10/23/2017

Additional data for EC transaction #386243 that would not fit on the form

32. Additional remarks, continued

isolation w/ 20 flow through composite plugs from approximately 9445-13624', see attached for detail.

6. After frac, MIRU CTU, RIH & drill out plugs & CO to PBTD @ 13737'. Circ hole w/ N2, then flow back and test.

7. After flow back, turn well over to operations, artificial lift procedure to be decided.

Mohawk Energy Flush Joint Specification Data Sheet

4.25 inch, 0.31 wall x 5.5 inch, 20 lb/ft FracPatch Specifications Expandable Pipe Body						
Pre-Expansion			Post Expansion			
OD	4.250	<i>inches</i>	OD	4.678	<i>inches</i>	
ID	3.630	<i>inches</i>	ID	4.084	<i>inches</i>	
Wall Thickness	0.310	<i>inches</i>	Wall Thickness	0.297	<i>inches</i>	
Weight	13.100	<i>lb/ft</i>	Drift	4.024	<i>inches</i>	
Drift	3.505	<i>inches</i>	Internal Yield	10,296	<i>psi</i>	
Seal Joint OD	4.490	<i>inches</i>	Collapse	6,024	<i>psi</i>	
Seal Thickness	0.120	<i>inches</i>	Expansion Ratio	12.497	<i>%</i>	

Expandable Connection						
Pre-Expansion			Post Expansion			
Connection OD	4.310	<i>inches</i>	Connection OD	4.738	<i>inches</i>	
Connection ID	3.600	<i>inches</i>	Connection ID	4.084	<i>inches</i>	
Drift	3.505	<i>inches</i>	Drift	4.024	<i>inches</i>	
Tensile Rating	142,286	<i>lbs</i>	Internal Yield	10,296	<i>psi</i>	
Compressive Rating	142,286	<i>lbs</i>	Collapse	6,024	<i>psi</i>	
Max DLS	36.01	<i>°/100ft</i>	Tensile Rating	151,612	<i>lbs</i>	
Optimum Torque	1,360	<i>ft-lbs</i>	Compressive Rating	136,451	<i>lbs</i>	
Max Torque	1,496	<i>ft-lbs</i>	Yield Torque	1,700	<i>ft-lbs</i>	

Mohawk Energy Setting Tool:

Appendix A1: Setting Tool

Table 4: 4.25 Setting Tool Specifications

Tool connection up	2-7/8", 7.9# PH-6 Box
Tool weight	900 lbs
Tool length	40.0 ft
Expansion stroke	2.80 ft
Max. dog-leg severity	25 °/100ft
Axial load rating	200,000 lbs
Max. pressure	4,500 psi
Max. temperature	400 °F
Circulation flow rate	30 gpm
Valve shut off flow rate	46 gpm
Pressure/force conversion	44 lbs/psi

Table 5: 3.50 Tool Running Parameters

Event	Pressure or Force
Stabbing sub latching load	500 lbs
Max. slack off during deployment	15,000 lbs
Max. overpull during deployment	25,000 lbs
Drive unit shear disk	1,750 psi
Tool reset	3,000-5,000 lbs
Safety burst disk relief	5,000 psi



Mohawk Energy RIH Procedure:

1) Liner Make Up and Deployment:

1. Conduct a safety meeting. Go over parameters such as number of joints to pick up, safe running speeds, safe running weights, and important depths. Mohawk rep will discuss circulation tool function.
2. Discuss well control options before running the liner.
3. Rig up Mohawk liner lifting subs, TIW valve, and circulating crossover subs.
4. Rig up casing handling equipment including slips and bowls, flush joint elevators, and tongs (if used).
5. Pick up setting tool with elevators using Mohawk's lift nubbin as a shoulder. Run in hole and set in slips (some applications require the slips to be set on the seal joint). Install a safety clamp.
6. Make up liner in final proposed order per *MetalPatch* liner tally sheet.
 - Install lift nubbin on each joint.
 - Mohawk's proprietary r2m thread is made up dopeless. Do not put dope on r2m threads.
 - Make up each r2m connection with Mohawk provided wrenches or to 1,300 ft-lbs with casing crew tongs.
 - Install safety clamp on every joint.
 - Designate one man to watch the lift nubbin while making up joints to ensure it spins freely and does not back off while making a connection.
7. After running all liner joints, pick up the exit joint with the exit joint lift nubbin. Land the exit joint as low as possible in the slips.
8. Rig up the Mohawk false rotary table on top of the exit joint.
9. Swap over to the Mohawk inner string circulating crossover assembly.
10. Rig up the work string slips on top of the Mohawk table. Cover the hole.
11. Swap all handling equipment to run work string inside of the Mohawk liner joints.
12. Pick up the inner string BHA (please see Table in page 13 above). Use minimum dope only on the pins.
13. Check tally and have a meeting to discuss latch-in depth (the inner string BHA will latch into the setting tool and pick up the liner).
14. Begin tripping in hole with work string:
 - Confirm latch-in depth.
 - 10ft above the setting tool, slow the trip in speed to 10 ft/min.
 - Continue to run in hole and latch into the setting tool by slacking off.
 - After latching in, pick up slowly and check to see the tool is latched and the liner lifts out of the slips.
 - Set down and pick up again to check latch-in (resetting the slip and bowl may be required).
 - Use Mohawk supplied jack to confirm tool is latched in for liners less than 100ft (see Appendix 5).
 - Pick up out of the slips.
15. Rig down the work string slips, rig down Mohawk table, and rig down the liner slips.
16. Rig up the work string slips and begin running the liner in the hole.
 - RIH 1 min/stand
 - If anything is tagged while RIH, notify a Mohawk representative.
 - Use caution on and off slips to avoid jarring the liner.
 - Circulate through tool at 0.5 BPM every 50 stands for 3 BBL.
 - If in a horizontal, take pick up and slack off weights before entering the lateral.
 - Monitor pick up and slack off weights.
 - After entering the lateral, pump down tubing 0.5 BPM every 10 stands.
17. Trip in hole to setting depth.
18. If using a plug or no-go for depth correlation, tag the plug and pull up accordingly.
19. If only using the tally for depth, run in past the target by at least 1 joint, pull back up to setting depth and measure depth while on up weight.

2) Liner Expansion Procedure:

1. Once depth, conduct a safety meeting. Review all tallies and confirm depths.
2. Rig up the pump-in sub, tubing swivel (chicksan), high-pressure hose, and expansion pump on to the tubing.
3. Pressure test surface lines to 6000 psi:
 - Ensure the liner is in exact position prior to starting the test.
 - Ensure pump kick-outs (or pop offs) are working.
 - Ensure there is a way to bleed pressure from tubing.
4. Open tubing and pump through the Mohawk setting tool, break circulation if well allows.
 - Ensure the liner is in exact position prior to circulating.
 - Set kick-outs to 500psi.
 - Do not exceed 0.5 BPM flow rate to circulate.
 - If pressure increases while circulating, do not bleed off.
5. After circulation, set kick-outs to 4000 psi.
6. Increase rate to 1 BPM, pressure will begin to build. Bring pressure to 3,500 psi and hold for 1 minute (hold first stroke only).
7. Bleed tubing down to zero pressure.
8. Mark the work string at the slips for reference.
9. With the rig, pull the tubing to reset the tool with 3,000-5,000 lbs over string weight or 3' (whichever occurs first). Mark the new position and measure.
10. Repeat Steps 6 through 9 until all lower seals are expanded.
11. After lower seals are expanded, begin pulling out with the rig:
 - Mohawk will recommend max hook loads to ensure safe operations.
 - Pull force will be string weight plus expansion force.
 - Expansion force can vary as the expansion tool moves through connections and wellbore restrictions.
 - If max hook load is seen, stop, slack down to neutral hook load, rig up the hose, and repeat Steps 6-9.
 - Pup joints can be on location to help with slacking down.
12. Stop expansion before reaching the upper seals.
 - Check progress using pipe tally.
 - Keep stretch in mind when calculating position.
13. Rig up the high pressure hose on to the tubing.
14. Increase rate to 1 BPM, pressure will begin to build. If liner compression is required, follow Mohawk direction. Otherwise, increase pressure to 3,700 psi.
 - Bring pressure to 1,000 psi and hold.
 - Slack down with pressure on tubing to compress the liner.
 - Increase pressure to 3,700 psi. While holding pressure, pick back up to neutral.
15. Bleed tubing down to zero pressure.
16. Mark the work string at the slips for reference.
17. With the rig, pull the tubing to reset the tool with 3,000-5,000 lbs over string weight. Mark the new position and measure.
18. Repeat steps 14-17 until upper seals are expanded:
 - Use pipe tally and pressure response to gauge when the upper seals have been expanded.
 - Upper seals should be expanded with hydraulic expansion and not mechanical over pull.
19. Clear the rig of all unnecessary personnel.
20. Begin expanding the liner by pulling with the rig.
 - Pull slowly.
 - Hook load will decrease once the setting tool exits the liner.
 - When exiting the top of the patch insure all pressure has been bled off the tubing.
21. Tag the top of the liner and confirm depth, estimated Top of liner at ~ 9,400' (Existing Top Perf at 9,444')
22. Drop ball to open drain sub. POOH and laydown all Mohawk tools. RDMO PU

OXY USA Inc. – Rum Runner 2 Federal Com #1H – 30-025-40095

# of Frac stages	DEPTH	STG # HOLES	% of frac	# PROP / STG AS DESIGNED	# of Frac plugs	SPACING Between Cluster
						distance from plug to perf
1	13,624	11	27.50%	400,000		Plug 1
	13,581	10	25.00%			
	13,538	10	25.00%			
	13,495	9	22.50%			
2	13,405	12	28.57%	400,000		Plug 2
	13,360	11	26.19%			
	13,315	10	23.81%			
	13,270	9	21.43%			
3	13,180	12	28.57%	400,000		Plug 3
	13,135	11	26.19%			
	13,090	10	23.81%			
	13,045	9	21.43%			
4	12,955	12	28.57%	400,000		Plug 4
	12,910	11	26.19%			
	12,865	10	23.81%			
	12,820	9	21.43%			
5	12,730	12	28.57%	400,000		Plug 5
	12,685	11	26.19%			
	12,640	10	23.81%			
	12,595	9	21.43%			
6	12,505	12	28.57%	400,000		Plug 6
	12,460	11	26.19%			
	12,415	10	23.81%			
	12,370	9	21.43%			
7	12,280	12	28.57%	400,000		Plug 7
	12,235	11	26.19%			
	12,190	10	23.81%			
	12,145	9	21.43%			
8	12,055	12	28.57%	400,000		Plug 8
	12,010	11	26.19%			
	11,965	10	23.81%			
	11,920	9	21.43%			
9	11,830	12	28.57%	400,000		Plug 9
	11,785	11	26.19%			
	11,740	10	23.81%			
	11,695	9	21.43%			
10	11,605	12	28.57%	400,000		Plug 10
	11,560	11	26.19%			
	11,515	10	23.81%			
	11,470	9	21.43%			
11	11,380	12	28.57%	400,000		Plug 11
	11,335	11	26.19%			
	11,290	10	23.81%			
	11,245	9	21.43%			

OXY USA Inc. – Rum Runner 2 Federal Com #1H – 30-025-40095

12	11,380	12	28.57%	400,000	Plug 12
	11,335	11	26.19%		
	11,290	10	23.81%		
	11,245	9	21.43%		
13	11,155	12	28.57%	400,000	Plug 13
	11,110	11	26.19%		
	11,065	10	23.81%		
	11,020	9	21.43%		
14	10,930	12	28.57%	400,000	Plug 14
	10,885	11	26.19%		
	10,840	10	23.81%		
	10,795	9	21.43%		
15	10,930	12	28.57%	400,000	Plug 15
	10,885	11	26.19%		
	10,840	10	23.81%		
	10,795	9	21.43%		
16	10,705	12	28.57%	400,000	Plug 16
	10,660	11	26.19%		
	10,615	10	23.81%		
	10,570	9	21.43%		
17	10,480	12	28.57%	400,000	Plug 17
	10,435	11	26.19%		
	10,390	10	23.81%		
	10,345	9	21.43%		
18	10,255	12	28.57%	400,000	Plug 18
	10,210	11	26.19%		
	10,165	10	23.81%		
	10,120	9	21.43%		
19	10,030	12	28.57%	400,000	Plug 19
	9,985	11	26.19%		
	9,940	10	23.81%		
	9,895	9	21.43%		
20	9,805	12	28.57%	400,000	Plug 20
	9,760	11	26.19%		
	9,715	10	23.81%		
	9,670	9	21.43%		
21	9,580	12	28.57%	400,000	
	9,535	11	26.19%		
	9,490	10	23.81%		
	9,445	9	21.43%		
EHD, "		0.43	Desired sand		
		880	8,400,000		4,174

OXY USA Inc. – Rum Runner 2 Federal Com #1H – 30-025-40095

Slickwater 1 (5,000 ft)			2000 #/ft_50 ft x 4 Clusters_Slickwater (5000 ft)									
			Fluid Information					Proppant Information				
#	Time [min]	Type	Rate [bpm]	Clean [gals]	Dirty [gals]	Cum. Dirty [gals]	Description	Prop. Conc. [PPA]	Description	Stage Sand [lbs]	Cum. Sand [lbs]	
1	9.52	Breakdown	20	8000	8,000	8,000	Slick Water					
2	11.11	Acid	30	2000	2,000	10,000	15% HCl					
3	20.04	Pad	80	30000	30,000	40,000	Slick Water					
4	25.99	Sand-Laden	80	20000	20,226	60,226	Slick Water	0.25	100 Mesh	5,000	5,000	
5	31.94	Sand-Laden	80	20000	20,452	80,679	Slick Water	0.50	100 Mesh	10,000	15,000	
6	40.87	Sand-Laden	80	30000	31,018	111,697	Slick Water	0.75	100 Mesh	22,500	37,500	
7	51.29	Sand-Laden	80	35000	36,584	148,280	Slick Water	1.00	100 Mesh	35,000	72,500	
8	63.79	Sand-Laden	80	42000	44,375	192,656	Slick Water	1.25	100 Mesh	52,500	125,000	
9	78.67	Sand-Laden	80	50000	53,394	246,049	Slick Water	1.50	100 Mesh	75,000	200,000	
10	83.13	Sweep	80	15000	15,000	261,049	Slick Water				200,000	
11	88.19	Sand-Laden	80	17000	17,385	278,434	Slick Water	0.50	40/70 White	8,500	208,500	
12	94.15	Sand-Laden	80	20000	20,905	299,339	Slick Water	1.00	40/70 White	20,000	228,500	
13	100.10	Sand-Laden	80	20000	21,131	320,470	Slick Water	1.25	40/70 White	25,000	253,500	
14	107.54	Sand-Laden	80	25000	26,697	347,167	Slick Water	1.50	40/70 White	37,500	291,000	
15	115.87	Sand-Laden	80	28000	30,217	377,384	Slick Water	1.75	40/70 White	49,000	340,000	
16	124.80	Sand-Laden	80	30000	32,715	410,099	Slick Water	2.00	40/70 White	60,000	400,000	

OXY USA Inc. - Proposed
Rum Runner 2 Federal #1H
API No. 30-025-40095

17-1/2" hole @ 1138'
13-3/8" csg @ 1138'
w/ 1330sx-TOC-Surf-Circ

12-1/4" hole @ 4715'
9-5/8" csg @ 4715'
w/ 1390sx-TOC-Surf-Circ

8-1/2" hole @ 13774'
5-1/2" csg @ 13774'
w/ 3650sx-TOC-Surf-Circ
DVT @ 6985'-4789'

4-1/4" 13.1# Frac Patch liner @ 9400-13737'
KOP @ 8730'

Perfs @ 9445-13624'

610sx @ 10100-8520' Tagged

TD-10100'V

TD-13774' 'M 9471'V

PBTD-13737' 'M 9460'V

OXY USA Inc. - Current
Rum Runner 2 Federal #1H
API No. 30-025-40095

17-1/2" hole @ 1138'
13-3/8" csg @ 1138'
w/ 1330sx-TOC-Surf-Circ

12-1/4" hole @ 4715'
9-5/8" csg @ 4715'
w/ 1390sx-TOC-Surf-Circ

8-1/2" hole @ 13774'
5-1/2" csg @ 13774'
w/ 3650sx-TOC-Surf-Circ
DVT @ 6985'-4789'

Kickoff @ 8730'

610sx @ 10100-8520' Tagged

Perfs @ 9450-13624'

TD-10100'V

TD-13774' 'M 9471'V

PBTD-13627' 'M 9460'V